

Abstract Submitted  
for the APR16 Meeting of  
The American Physical Society

**Characterizing Scintillation and Cherenkov Light Yield in Water-Based Liquid Scintillators** B. J. LAND, J. CARAVACA, F. B. DESCAMPS, G. D. OREBI GANN, Univ of California - Berkeley — The recent development of Water-based Liquid Scintillator (WbLS) has made it possible to produce scintillating materials with highly tunable light yields and excellent optical clarity. This allows for a straightforward combination of the directional properties of Cherenkov light with the greater energy resolution afforded by the typically brighter scintillation light, which lends itself well to a broad program of neutrino physics. Here we explore the light yields and optical properties of WbLS materials in development for Theia (formerly ASDC) as measured in our benchtop Theia R&D at Berkeley Lab and extrapolate to larger detectors.

Benjamin Land  
Univ of California - Berkeley

Date submitted: 08 Jan 2016

Electronic form version 1.4